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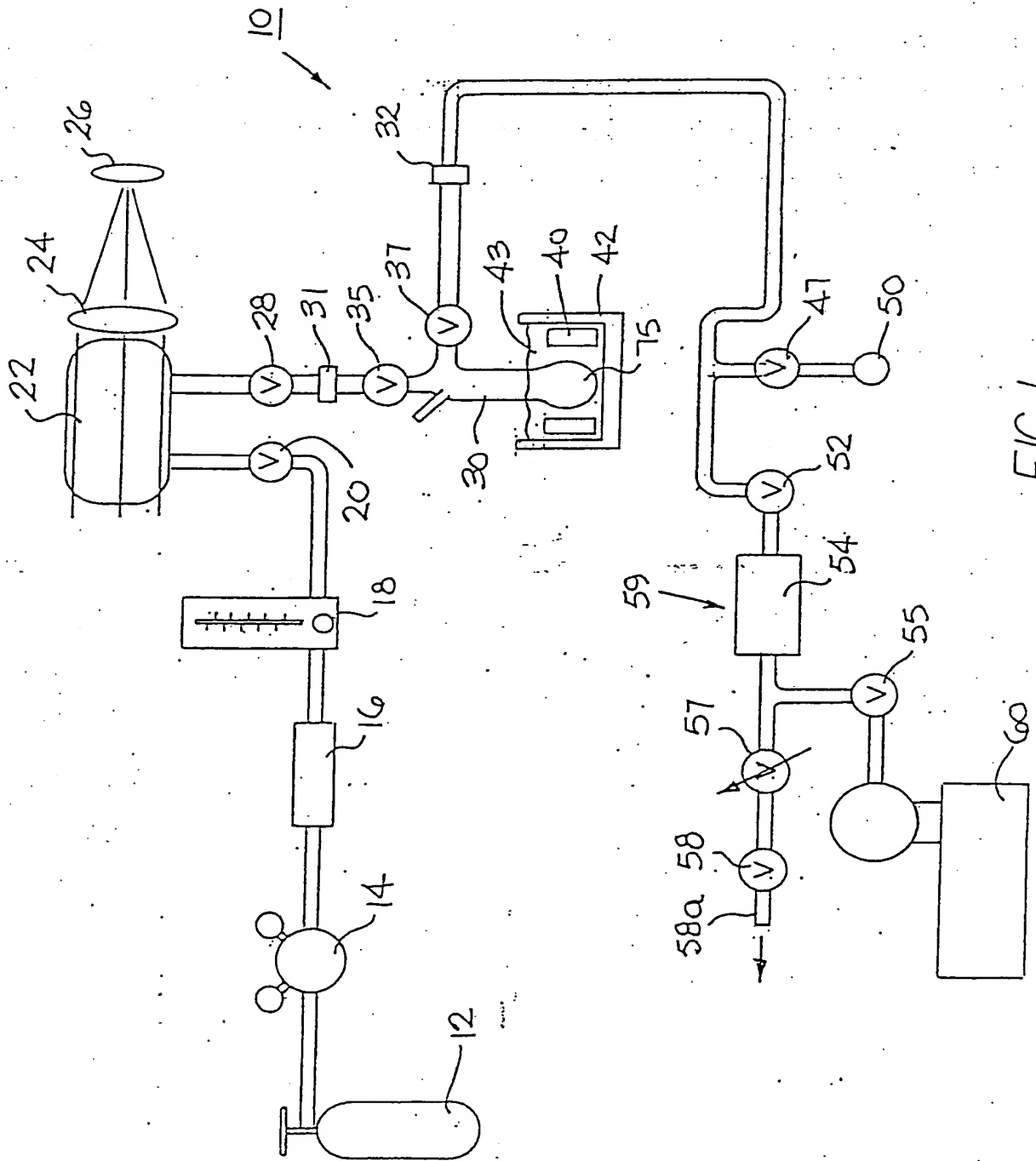


FIG. 1

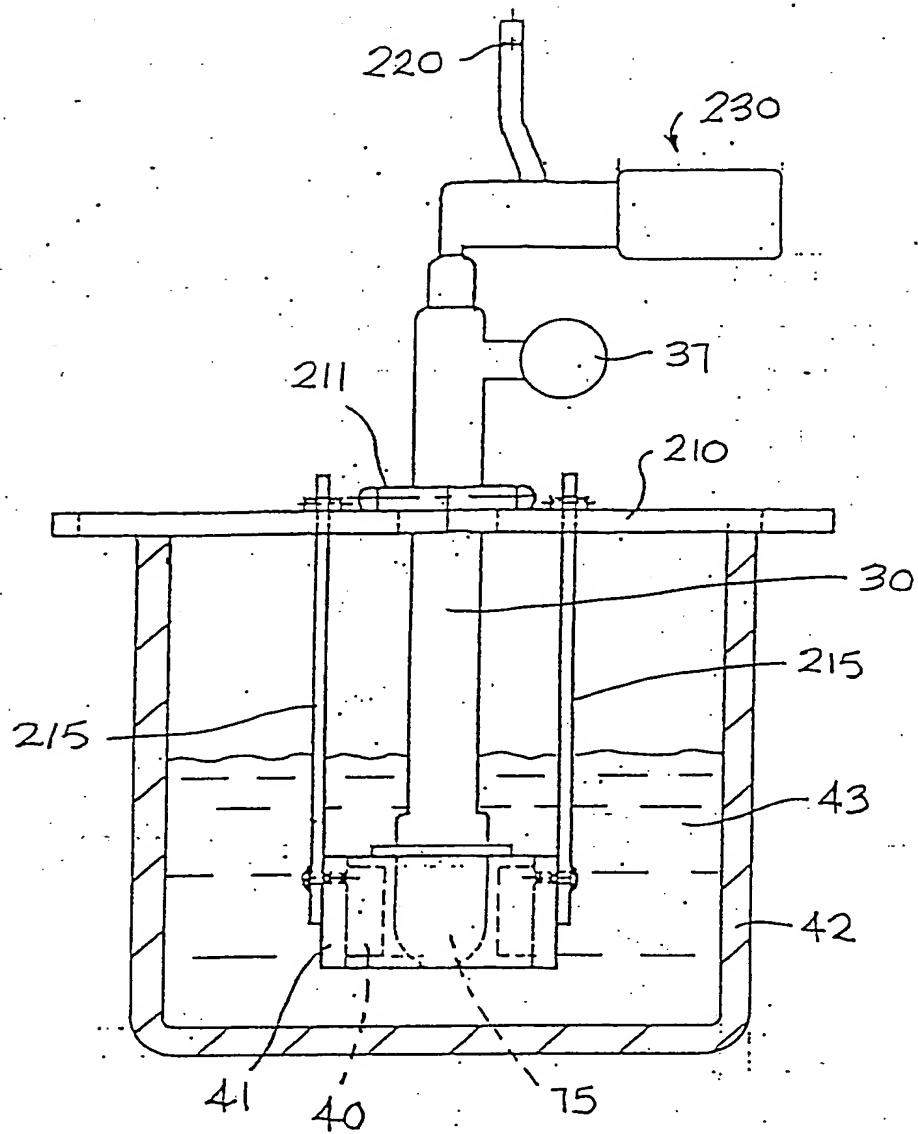


FIG. 2

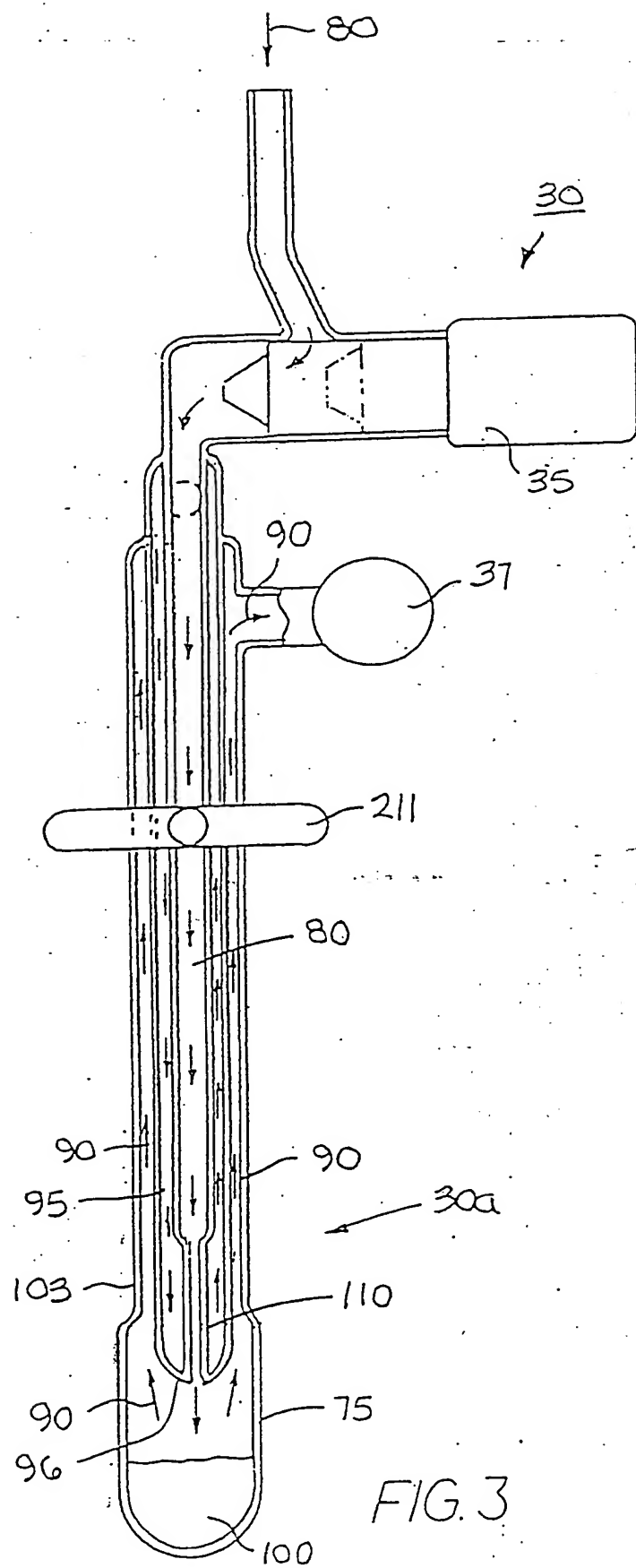
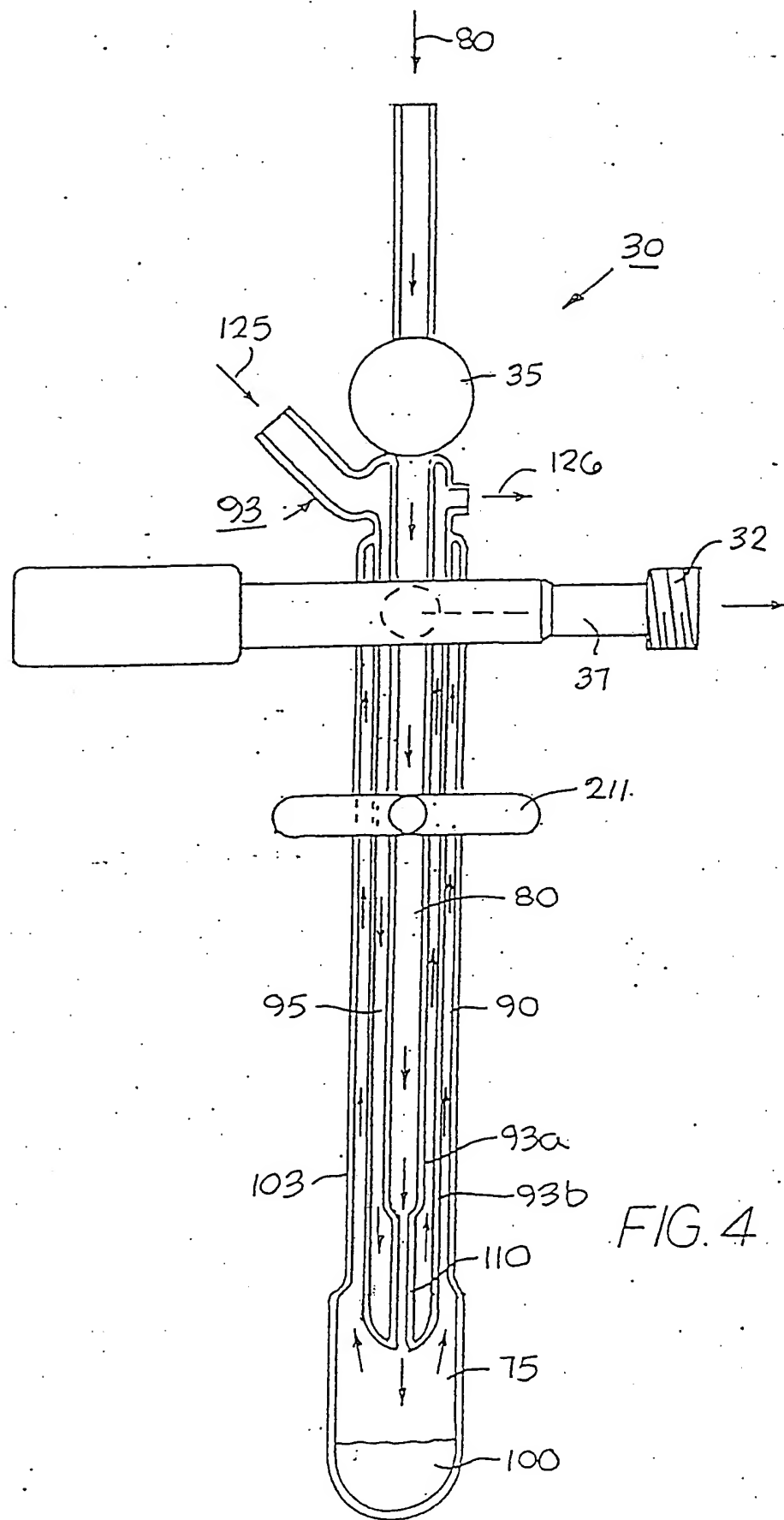
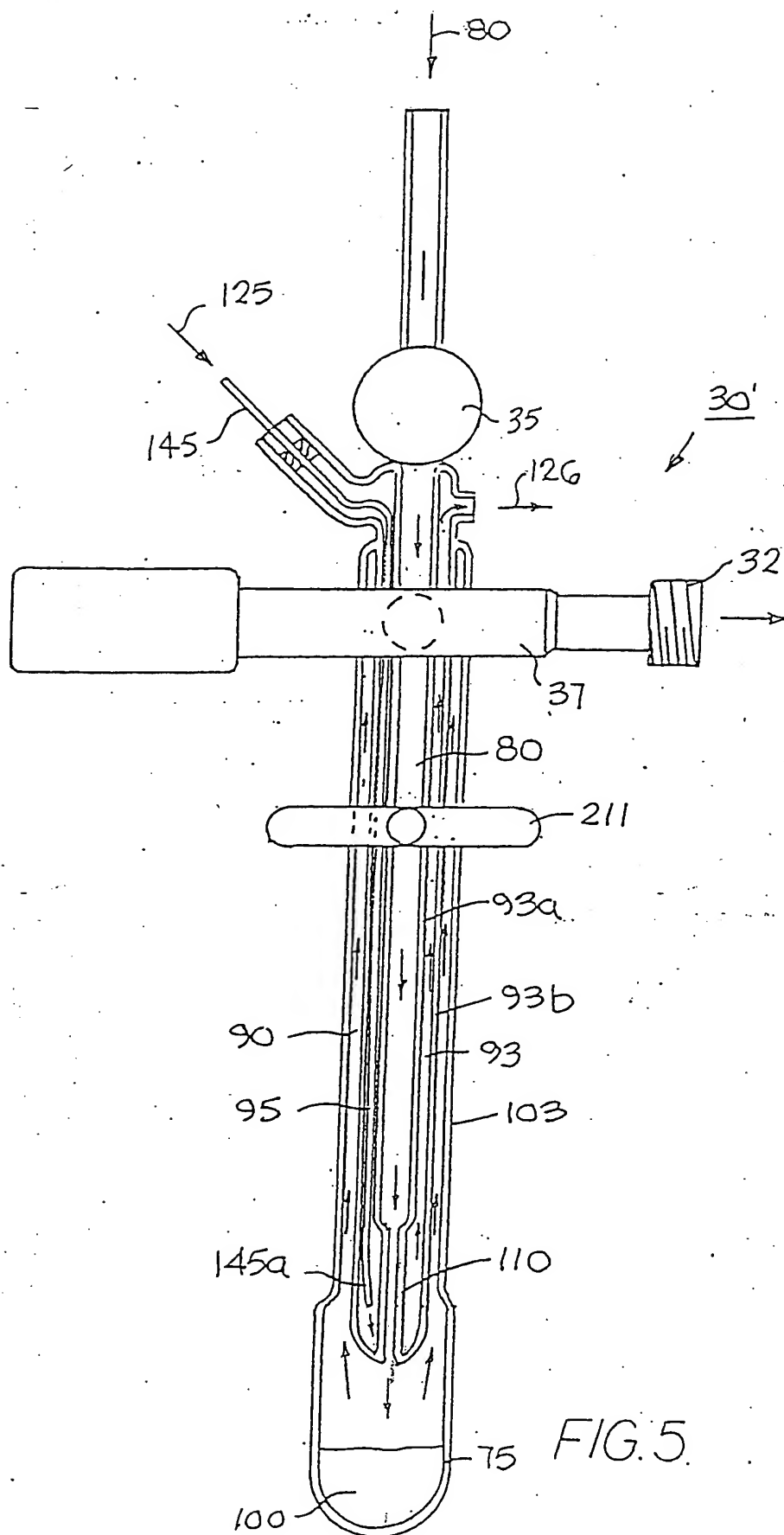


FIG. 3





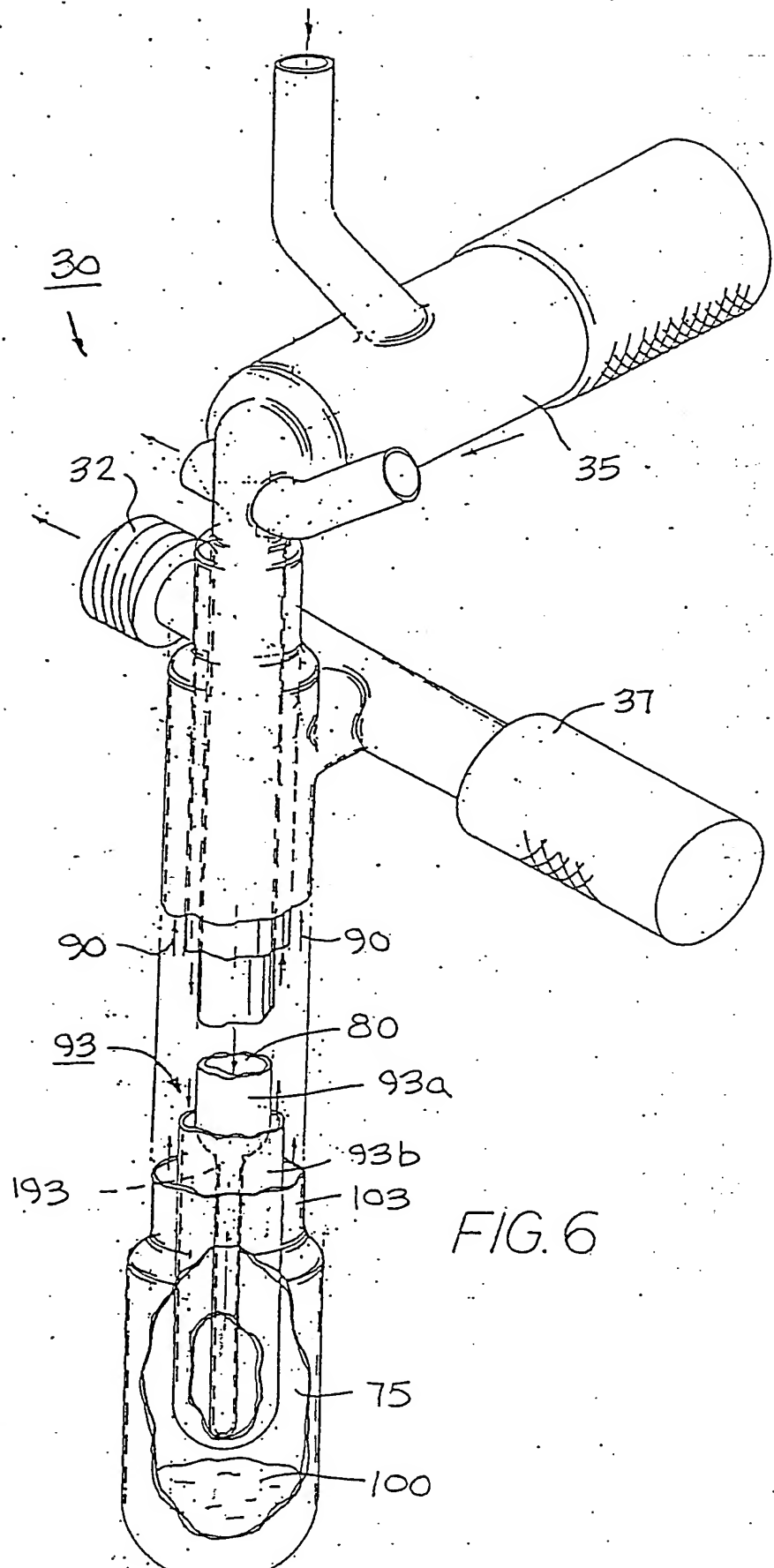
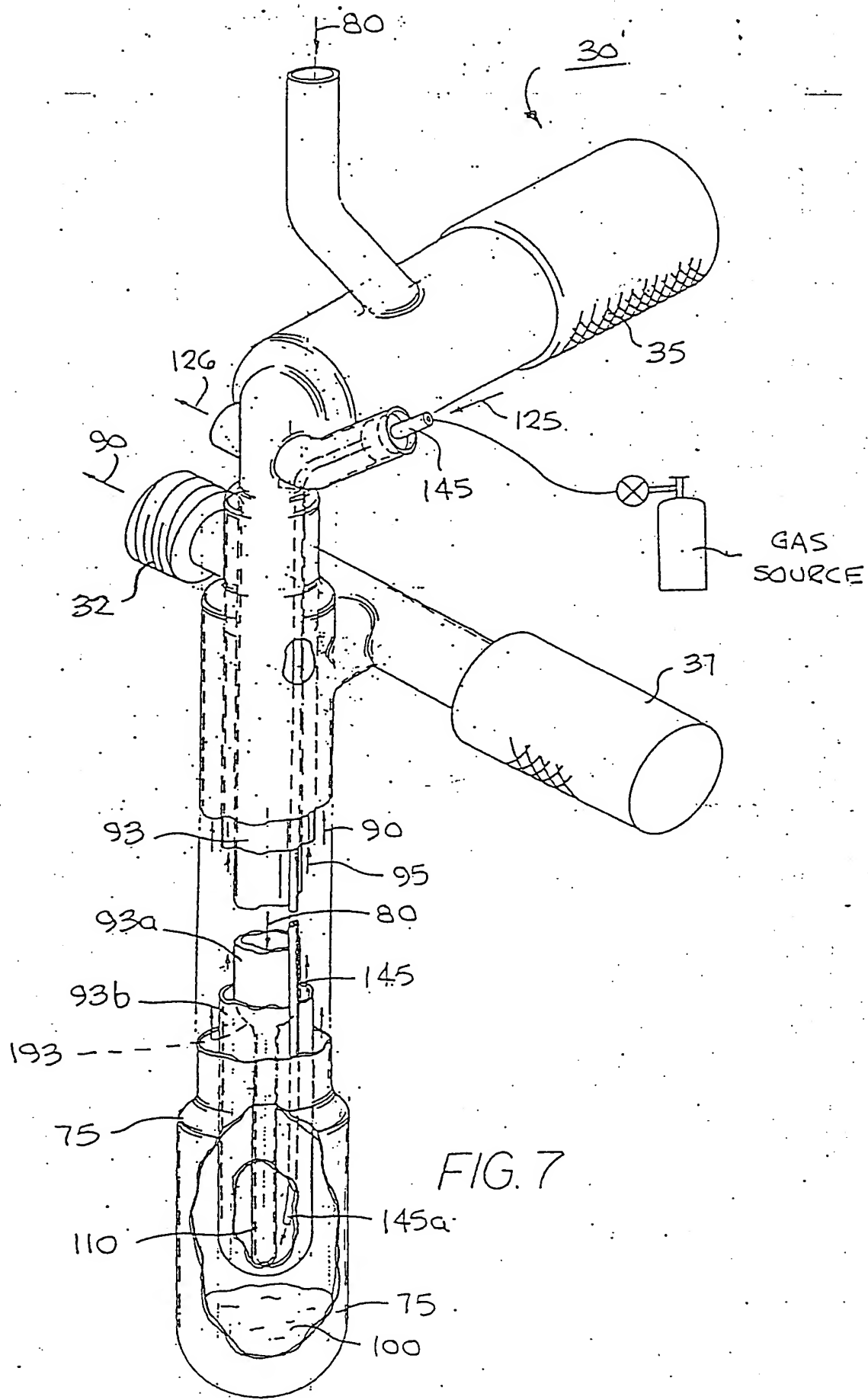
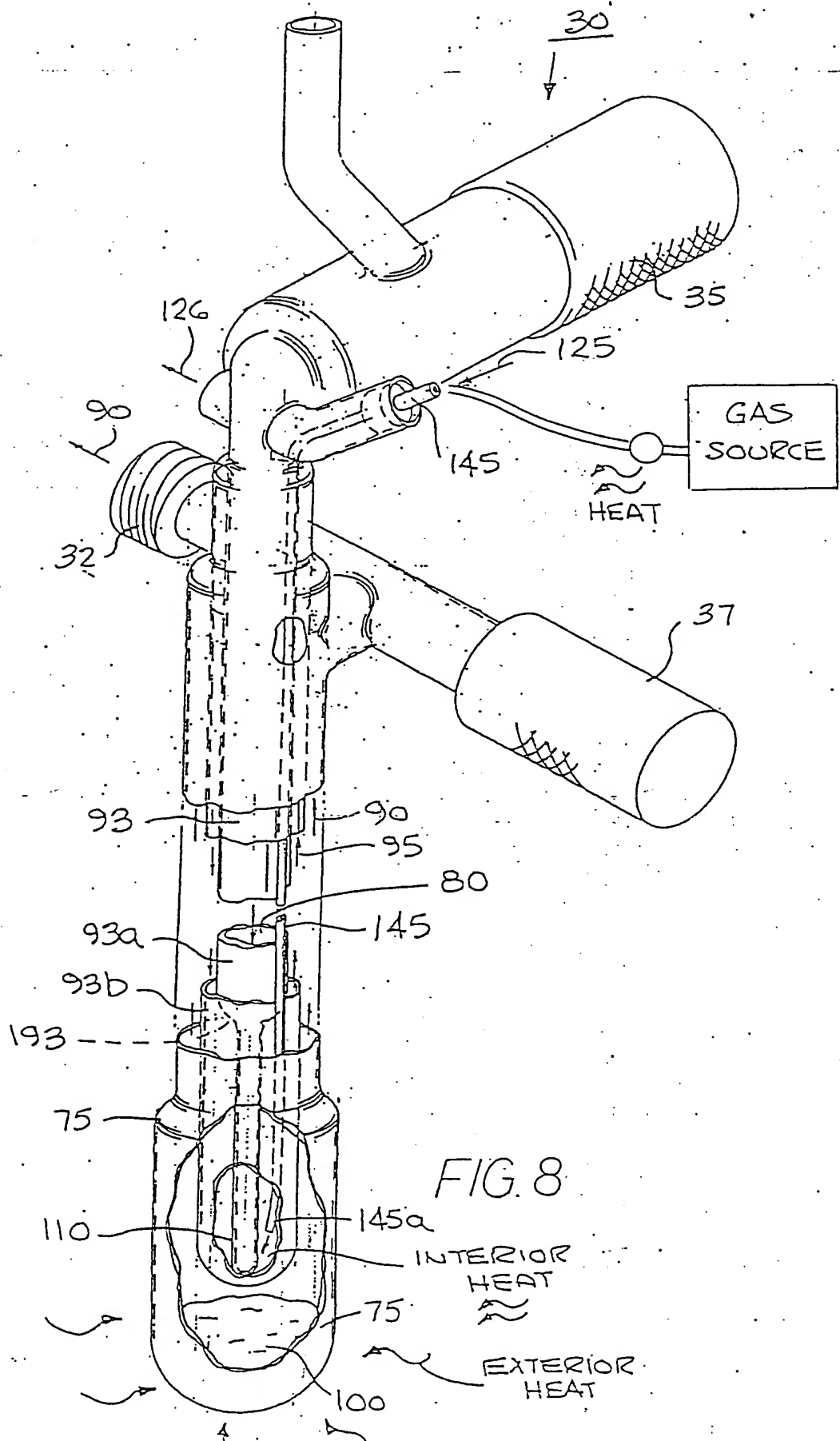


FIG. 6





Directing a gas mixture comprising a polarized gas into a collection path.

900

Receiving polarized gas into an accumulator in the collection path, the accumulator having an inlet channel, a collection reservoir, and an exit channel.

910

Exposing the collection reservoir of the accumulator to temperatures below the freezing point of the polarized noble gas.

920

Trapping the polarized noble gas in a substantially frozen state in the collection reservoir.

930

Routing the remainder of the gas mixture into the exit channel.

940

Heating a portion of the inlet channel in the accumulator to facilitate the flow of the gas mixture therethrough.

950

FIG. 9

Providing a sealed container having an interior flow path and a collection chamber, the collection chamber holding polarized frozen gas therein.
1000

Exposing the frozen polarized gas to a magnetic field.
1005

Heating a portion of the interior flow path adjacent the collection chamber.
1010

Heating the exterior of the sealed container.
1020

Liquifying the frozen polarized noble gas during said heating steps such that a minimum of the polarized gas transitions to the gaseous phase.
1030

Releasing the gas pressure in the sealed container as soon as the liquid state is achieved.
1040

FIG. 10

Providing a magnetic field.
1100

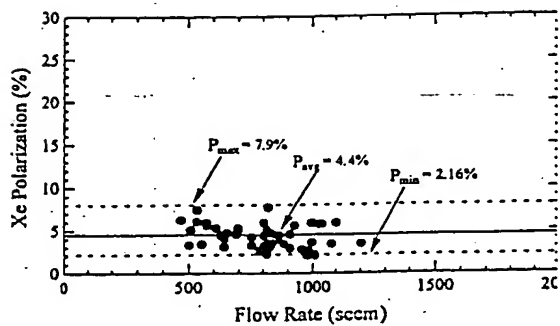
Freezing a polarized noble
gas in the presence of the
magnetic field.
1110

Sealing a quantity of the
polarized gas in a
containment device.
1115

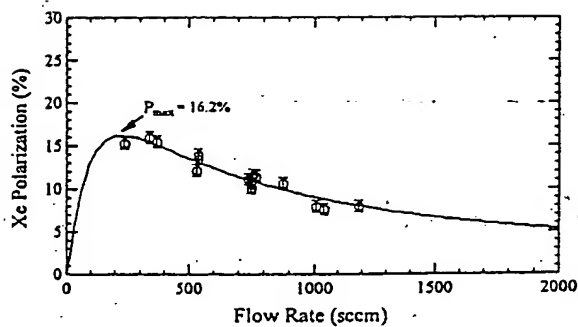
Thawing the polarized gas
in the presence of the
magnetic field.
1120

Converting a substantial
quantity of the frozen gas
directly into the liquid phase
in the sealed container
during the thawing step.
1130

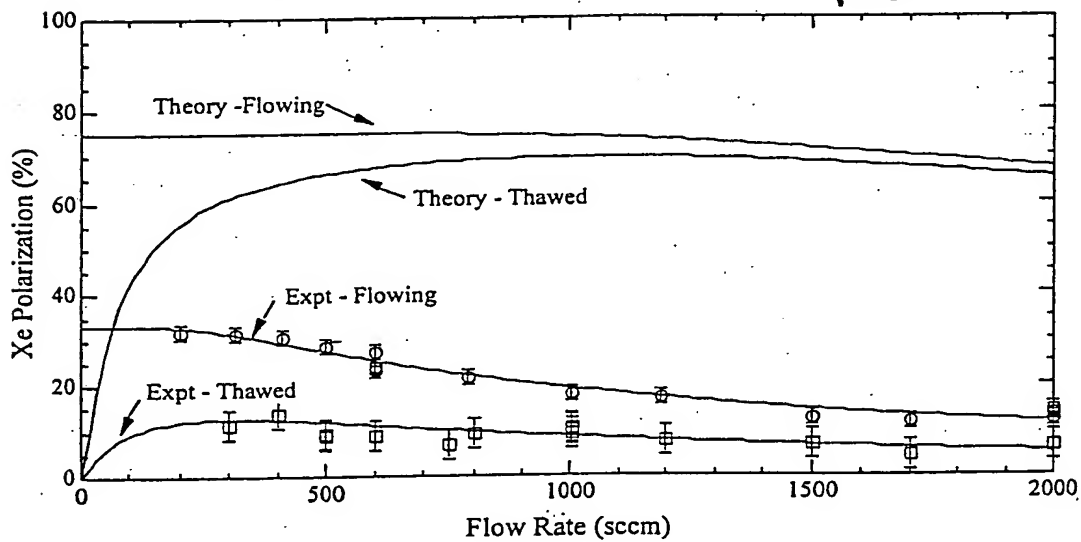
FIG. 11



12A



12B



13

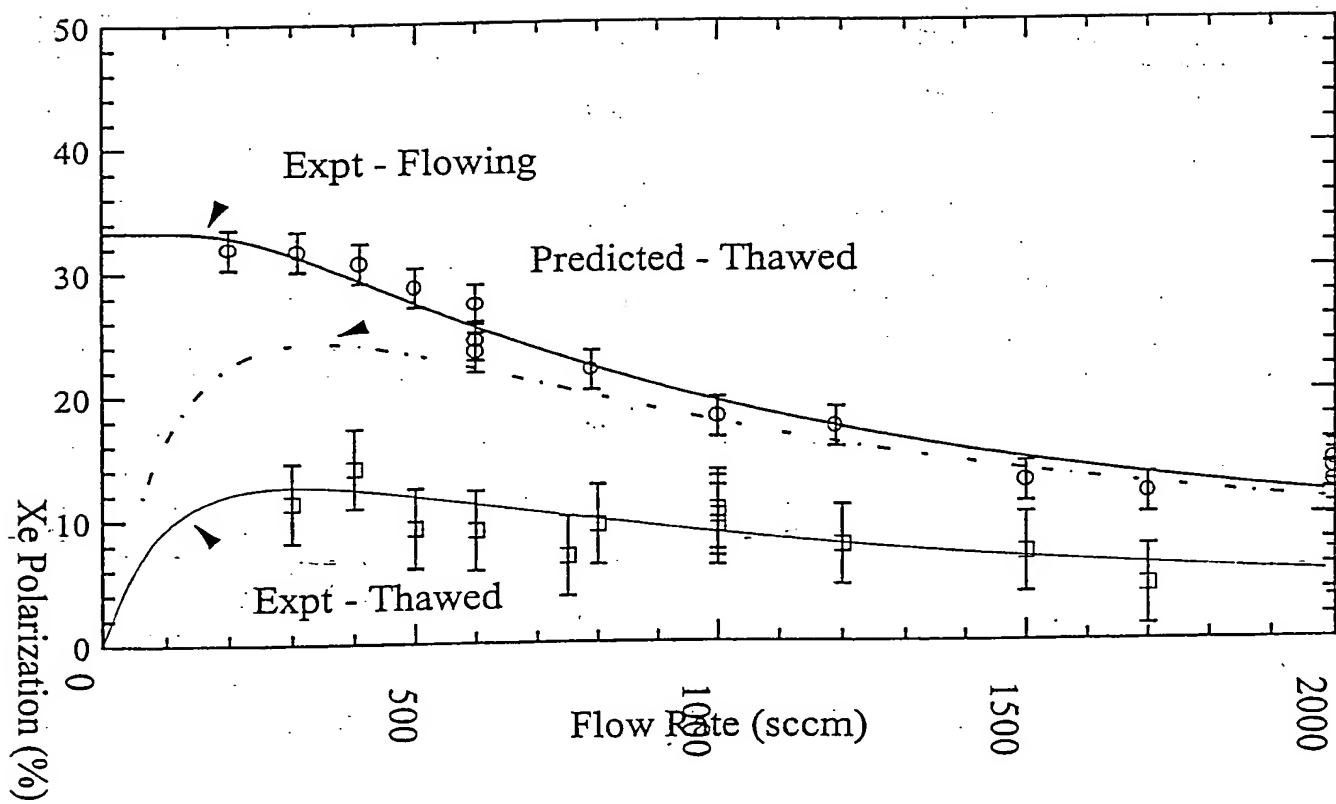


Fig. 13A